

## EG&G ROCKY FLATS

EG&G ROCKY FLATS, INC.  
ROCKY FLATS PLANT, P.O. BOX 464, GOLDEN, COLORADO 80402-0464 • (303) 966-7000

July 22, 1992

92-RF-8480

Terry A. Vaeth  
Manager  
DOE, RFO

Attn: J. K. Hartman

OPERABLE UNIT NO. 8 FIELD SAMPLING PLAN - JMK-0709-92

Ref: J. K. Hartman ltr (7722) to J. M. Kersh, EG&G Surface Water and Sediment Field Sampling Plan, July 16, 1992

In response to the above-referenced letter, EG&G Environmental Management Department (EM) has prepared the attached outline for a Field Sampling Plan (FSP) for surface water and sediment sampling for the Operable Unit Number 8 (surface water) RCRA Facility Investigation (RFI) at the Rocky Flats Plant. This outline is for a FSP which combines all surface water and sediment sampling for Operable Units (OUs) 8, 9, 10, 12, 13, and 14 into one FSP for the Protected Area (PA) using all available surface water and sediment quality data.

The requested summary of all existing surface water and sediment data is not included herein, because your request provided insufficient time to prepare an adequate data summary. EM estimates that approximately 6 weeks would be required to produce a data summary. This activity is included in the attached schedule and cost estimation.

EM recognizes that an integrated approach to data collection for these OU investigations is necessary, and EM is taking steps to ensure that integration. However, EM does not recommend formal alteration of the existing Work Plans for the PA OUs. A preliminary analysis of the costs, schedules, and programs/activities that would be impacted by a formal change in scope for the PA OUs leads us to the conclusion that the marginal benefit does not warrant the substantial cost and schedule delays.

## Change Control

Because the requested effort would constitute a major change in the scope of the OU 8, 9, 10, 12, 13, and 14 Work Plans and field activities, it would be prudent to jointly agree on the changes with EG&G, DOE/RFO, USEPA, and CDH to ensure that the regulators are aware of and concur with the impacts of this proposed FSP preparation. After the scope of the changes for each OU are determined, the Plant Change Control Board would have to approve the transfer of funding from OUs 9, 10, 12, 13, and 14 to OU 8 for use by Surface Water along with additional funding from Management Reserve. We estimate three to four weeks for completion of the Change Control process.

### Approach

Two approaches have been considered for this effort: in-house FSP preparation and subcontracted FSP preparation. Both approaches would be costly (\$600K-\$900K). Attached for your information is

**ADMIN RECORD**

A-0013-000140

SEARCHED INDEXED  
SERIALIZED FILED  
JUN 19 1993  
FBI - NEW YORK

CLASSIFICATION:

CONFIDENTIAL		
UNCLASSIFIED		
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER  
 SIGNATURE  
 - applicable  
 - classification  
 on office  
 exemption

REPLY TO REF 00 NO 1

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L: CHZ

AW/vhs

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Arar and Collins (1971).

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an estimate of the additional funding required for preparation of the Surface Water FSP for OU 8 only. Additional funding (approximately 2-3 times the cost of OU 8) would be required to modify the OU 9, 10, 12, 13, and 14 Work Plans.

In-house FSP preparation would be quicker and avoid the six week procurement delay required for the subcontracted preparation. However, neither of these optimistic schedules (attached) would deliver the FSP by the September 28, 1992 IAG milestone for completion of the Final Phase I RFI/RI Work Plan for OU 8. A two- to four-month delay would occur.

#### Impacts of Requested FSP Preparation

Because in-house preparation of the FSP would unacceptably impact environmental protection and restoration program management capabilities and schedules, EM would use the subcontracted approach to develop the FSP. Nevertheless, other IAG schedule delays would occur, such as:

1. Changing the scheduled implementation of OU 9 and OU 10 activities in order to rewrite the agency-approved OU 9 and OU 10 Work Plans;
2. Changing the scheduled completion of the Surface Water, OU 12, OU 13, and OU 14 Work Plans to accommodate FSP changes; and
3. Delay in the scheduled start of field activities for OU 4.

Additionally, preparation of several DOE deliverables would be delayed. These include:

1. South Interceptor Ditch Soil and Sediment Erosion Study (ERD:JLP:5476);
2. Preparation of a Surface Water and Sediment Monitoring Program Summary Document (WMED:GWL:3613); and
3. Update of the Terminal Pond Water Quality Evaluation for Radionuclide Discharge (Section 12 of IAG).

Furthermore, pursuit of this self-imposed requirement with its attendant IAG delays could weaken DOE's position for potential IAG renegotiations.

#### Current Approach

EM recognizes the necessity of an integrated approach to surface water and sediment monitoring for the PA OUs. This integration already is inherent in the interaction between the Surface Water Division (SWD) and the Remediation Programs Division (RPD) to implement surface water and sediment monitoring for RFI/RI activities.

Comprehensive PA OU monitoring can be accomplished through an integrated SWD-RPD program. This program can be developed informally by incorporating individual OU Work Plan requirements into a single program within the SWD without preparation of additional formal planning documentation.

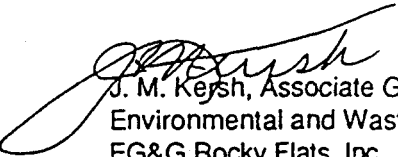
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To facilitate program integration, a working group consisting of SWD and RPD representatives will develop integrated monitoring schedules for the PA OUs. A chairman for this working group will be designated as a single point of contact to report schedules to DOE/RFO. The SWD-RPD interaction will continue to grow to accommodate OU monitoring and data analysis needs as OU Work Plans are prepared and implemented.

Funding for this integrated monitoring program will be shared by each OU by listing multiple charge account numbers on purchase requisitions instead of presenting major changes of scope to the Plant Change Control Board.

In summary, EG&G recommends continuation of the current informal SWD-RPD interaction regarding surface water and sediment monitoring. We believe the approach described above will achieve the desired results without the cost, schedule, and programmatic impacts of changing the individual OU Work Plans.

If you have questions about the materials presented herein, please contact M. B. Arndt at extension 8509, B. D. Peterman at extension 8659, or K. M. Motyl at extension 8602, all of Environmental Management.



J. M. Kerish, Associate General Manager  
Environmental and Waste Management  
EG&G Rocky Flats, Inc.

GAW:vbs  
BDP:dmf

Orig. and 1 cc - T. A. Vaeth

Attachments:  
As Stated (2)

cc.

F. R. Lockhart - DOE, RFO  
B. K. Thatcher, Jr. - DOE, RFO

## **DRAFT OUTLINE FOR RFI FIELD SAMPLING PLAN FOR SURFACE WATER AND SEDIMENT DATA COLLECTION**

### **I. OBJECTIVES**

### **II. BACKGROUND AND RATIONALE**

A. Sampling Rationale

B. Analytical Rationale

C. Relevant Studies of OUs located in the Protected Area

D. Data Compilation

a. Monitoring Programs

b. Data Sources

c. Application

E. Surface Surveys

a. Radiation Surveys

b. Surficial Soil Surveys

c. Drainage Patterns

### **III. SAMPLING DESIGN AND LOCATIONS**

A. Individual Hazardous Substance Site Overview

1. Potential Contaminants of Concern

2. Contaminant Fate and Transport

B. Sitewide Monitoring Program Locations

1. Locations
2. Data Analysis Plan

C. Event-Related Monitoring Locations

1. Locations
2. Sampling and Data Analysis Plan

III. D. Building Sumps and Footing Drains

1. Locations
2. SWD Drain Study
3. Sampling and Data Analysis Plan

E. 750 Pad and 750 Culvert Monitoring

IV. SAMPLE COLLECTION AND ANALYSIS

- A. Sample Design
- B. Analytical Requirements
- C. Sample Containers and Preservation
- D. Sample Handling and Documentation
- E. Standard Operating Procedures

V. DATA MANAGEMENT AND REPORTING

VI. FIELD QC PROCEDURES

Estimated Direct Labor Costs for OU8 Surface-Water and Sediment Field Sampling Plan-Prep			
Scenario #1--In-House Preparation			
		Cost per	
Activity	Hours	Hour	Cost
Scoping with DOE,EPA,CDH	480	72.11	34612.8
Change Control	160	72.11	11537.6
Accumulate Data	20	72.11	1442.2
Data Cleanup/Input	160	72.11	11537.6
Review Existing Work Plans	320	72.11	23075.2
Analyze Data	240	72.11	17306.4
Write Field Sampling Plan	480	72.11	34612.8
Review Field Sampling Plan	480	72.11	34612.8
Rewrite Field Sampling Plan	160	72.11	11537.6
EPA, CDH Review	8	72.11	576.88
Rewrite as per EPA,CDH	80	72.11	5768.8
Final Submittal to EPA,CDH	40	72.11	2884.4
		Total:	189505.08
Scenario #2--Subcontractor Preparation			
		Cost Per	
Activity	Hours	Hour	Cost
Scoping with DOE,EPA,CDH	480	72.11	34612.8
Change Control	160	72.11	11537.6
Accumulate Data	20	72.11	1442.2
Data Cleanup/Input	160	72.11	11537.6
Procurement	40	72.11	2884.4
Subcontractor Preparation	800	120	96000
Review Field Sampling Plan	480	72.11	34612.8
Subcontractor Rewrite FSP	200	120	24000
EPA, CDH Review	8	72.11	576.88
Sub Rewrite as per EPA,CDH	80	120	9600
Final Submittal to EPA,CDH	40	72.11	2884.4
		Total:	229688.68
NOTE: The above estimations account for modification of the existing OU8 Field Sampling Plan. This does not account for modification of Work Plans for OU9, OU10, OU12, OU13, and OU14 Field Sampling Plans. EG&G cost/hour based on 2080 hours per FTE and \$150,000/FTE. Subcontractor cost/hour = \$35/hr X 300% for O.H., G&A, and materials + 10% Profit and Fee.			

In-House FSP Production

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessors	August	September	October	November	December	January																					
1	Scoping with DOE, EPA, CDH	2w	7/27/92 8:00am	8/7/92 5:00pm		7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	12/27	1/3	1/10	1/17	
2	Charge Control	4w	8/10/92 8:00am	9/4/92 5:00pm	1																											
3	Data Retrieval from RFEDS, EMF	2w	7/27/92 8:00am	8/7/92 5:00pm																												
4	Data Clean Up and Input	4w	8/10/92 8:00am	9/4/92 5:00pm	3																											
5	Review Existing Workplans	4w	7/27/92 8:00am	9/4/92 5:00pm																												
6	Data Analysis	2w	8/10/92 8:00am	9/21/92 5:00pm	4																											
7	Write FSP	4w	9/22/92 8:00am	10/19/92 5:00pm	5																											
8	IAQ MS - Submit Final Workplan	4w	9/22/92 8:00am	10/19/92 5:00pm																												
9	Review FSP, DOE, RFO DU Managers, SW Program Mgr	2w	10/20/92 8:00am	11/2/92 5:00pm	7																											
10	Re-write FSP	2w	11/3/92 8:00am	11/16/92 5:00pm	9																											
11	EPA, CDH Review	1w	11/17/92 8:00am	11/23/92 5:00pm	10																											
12	Finalize per EPA Comments	1w	11/24/92 8:00am	12/1/92 5:00pm	11																											
13	Resubmit for approval	1w	12/2/92 8:00am	12/8/92 5:00pm	12																											

Subcontractor In-House FSP Production

ID	Name	Duration	Scheduled Start	Scheduled Finish	Predecessors	7/26	8/2	8/9	8/16	8/23	8/30	9/6	9/13	9/20	9/27	10/4	10/11	10/18	10/25	11/1	11/8	11/15	11/22	11/29	12/6	12/13	12/20	12/27	1/3	1/10	1/17	
1	Scoping with DOE, EPA, CDH	2w	7/27/92 8:00am	8/7/92 5:00pm																												
2	Charge Control	4w	8/10/92 8:00am	8/24/92 5:00pm	1																											
3	Data Retrieval from RFEDS, EMF	2w	7/27/92 8:00am	8/7/92 5:00pm	1																											
4	Data Clean-Up and Input	4w	8/10/92 8:00am	8/24/92 5:00pm	3																											
5	Procurement	6w	8/7/92 8:00am	10/19/92 5:00pm	2																											
6	Subcontractor	6w	10/20/92 8:00am	12/1/92 5:00pm	5,4																											
7	IAQ MS - Submit Final Workplan	4w	9/22/92 8:00am	10/19/92 5:00pm																												
8	EQ&O, DOE Review	2w	12/2/92 8:00am	12/15/92 5:00pm	6																											
9	Review by Sub (Chrisnaul)	2w	12/16/92 8:00am	12/31/92 5:00pm	8																											
10	Submit to EPA, CDH	1w	1/1/93 8:00am	1/7/93 5:00pm	9																											
11	Re-write as per EPA, CDA Comments	1w	1/8/93 8:00am	1/14/93 5:00pm	10																											
12	Approval	1w	1/15/93 8:00am	1/21/93 5:00pm	11																											